

1 12. (Amended) A light modulator comprising:

- 2 a. elongated elements arranged parallel to each other and configured in a grating
3 plane, each of selected ones of the elongated elements comprising a first
4 conductive element, each elongated element comprising a reflective surface such
5 that in operation an incident light diffracts into at least two diffraction orders; and
6 b. a substrate coupled to the elongated elements and comprising a second conductive
7 element such that in operation an electrical bias applied between the first
8 conductive elements and the second conductive element adjusts a height of the
9 selected ones of the elongated elements relative to the grating plane and further
10 such that in operation the incident light diffracts into a single non-zero diffraction
11 order different than the at least two diffraction orders.

1 13. (Amended) A light modulator comprising:

- 2 a. elongated elements arranged parallel to each other in a grating plane, each
3 elongated element comprising a blaze profile, each blaze profile comprising a
4 reflective surface, each of selected ones of the elongated elements comprising a
5 first conductive element along the blaze profile, the blaze profile comprising at
6 least two planar surfaces, the two planar surfaces comprising planes parallel to the
7 grating plane such that in operation an incident light diffracts into at least two
8 diffraction orders; and
9 b. a substrate coupled to the elongated elements, the substrate comprising a second
10 conductive element such that, when an electrical bias applied between the first
11 conductive elements and the second conductive element adjusts a height of the
12 selected ones of the elongated elements, the incident light diffracts into a single
13 non-zero diffraction order different than the at least two diffraction orders.

1 14. (Amended) A light modulator comprising:

- 2 a. means for diffracting an incident light into at least two diffraction orders; and
3 b. means for adjusting the means for diffracting such that the incident light diffracts
4 into a single non-zero diffraction order different than the at least two diffraction
5 orders.

1 31. (Amended) A light modulator comprising:

- 2 a. elongated elements arranged parallel to each other and dynamically configurable
3 in groupings of the elongated elements, each elongated element comprising a
4 reflective surface such that in operation an incident light illuminating the
5 elongated elements produces a reflected light when the elongated elements are at a
6 first height, each of the groupings comprising at least three of the elongated
7 elements and each of the groupings comprising an identical number of the
8 elongated elements; and
9 b. means for adjusting a relative height of the elongated elements of each of the
10 groupings such that in operation the incident light illuminating the elongated
11 elements produces a single diffraction order.

1 36. (Amended) A light modulator comprising:

- 2 a. elongated elements arranged parallel to each other and configured in groupings of
3 the elongated elements, each elongated element comprising a reflective surface
4 and a first conductive element, each of the groupings comprising at least three of
5 the elongated elements and each of the groupings comprising an identical number
6 of the elongated elements; and
7 b. a substrate coupled to the elongated elements, the substrate comprising a second
8 conductive element such that in operation an incident light illuminating the
9 elongated elements produces a reflected light when the elongated elements are at a
10 first height and further such that in operation a relative height of the elongated
11 elements of each grouping are adjusted to produce a single diffraction order when
12 individually varying electrical biases are applied between the first conductive
13 elements of each of the groupings and the second conductive element.

Amendments to the claims (marked version showing changes):

- 1 1. (Amended) A light modulator comprising:
2 a. elongated elements arranged parallel to each other and configured in a grating
3 plane, each elongated element comprising a reflective surface such that in
4 operation an incident light diffracts into at least two diffraction orders; and
5 b. means for adjusting a height of selected ones of the elongated elements relative to
6 the grating plane such that in operation the incident light diffracts into a single
7 non-zero diffraction order different than the at least two diffraction orders.

- 1 10. (Amended) The light modulator of claim 9 wherein the at least two diffraction orders
2 comprise a zeroth order diffraction and one of a plus or minus second order diffraction.

- 1 12. (Amended) A light modulator comprising:
2 a. elongated elements arranged parallel to each other and configured in a grating
3 plane, each of selected ones of the elongated elements comprising a first
4 conductive element, each elongated element comprising a reflective surface such
5 that in operation an incident light diffracts into at least two diffraction orders; and
6 b. a substrate coupled to the elongated elements and comprising a second conductive
7 element such that in operation an electrical bias applied between the first
8 conductive elements and the second conductive element adjusts a height of the
9 selected ones of the elongated elements relative to the grating plane and further
10 such that in operation the incident light diffracts into a single non-zero diffraction
11 order different than the at least two diffraction orders.

- 1 13. (Amended) A light modulator comprising:
2 a. elongated elements arranged parallel to each other in a grating plane, each
3 elongated element comprising a blaze profile, each blaze profile comprising a
4 reflective surface, each of selected ones of the elongated elements comprising a
5 first conductive element along the blaze profile, the blaze profile comprising at
6 least two planar surfaces, the two planar surfaces comprising planes parallel to the

7 grating plane such that in operation an incident light diffracts into at least two
8 diffraction orders; and

- 9 b. a substrate coupled to the elongated elements, the substrate comprising a second
10 conductive element such that, when an electrical bias applied between the first
11 conductive elements and the second conductive element adjusts a height of the
12 selected ones of the elongated elements, the incident light diffracts into a single
13 non-zero diffraction order different than the at least two diffraction orders.

1 14. (Amended) A light modulator comprising:

- 2 a. means for diffracting an incident light into at least two diffraction orders; and
3 b. means for adjusting the means for diffracting such that the incident light diffracts
4 into a single non-zero diffraction order different than the at least two diffraction
5 orders.

1 31. (Amended) A light modulator comprising:

- 2 a. elongated elements arranged parallel to each other and dynamically configurable
3 in groupings of the elongated elements, each elongated element comprising a
4 reflective surface such that in operation an incident light illuminating the
5 elongated elements produces a reflected light when the elongated elements are at a
6 first height, each of the groupings comprising at least three of the elongated
7 elements and each of the groupings comprising an identical number of the
8 elongated elements; and
9 b. means for adjusting a relative height of the elongated elements of each of the
10 groupings such that in operation the incident light illuminating the elongated
11 elements produces a single diffraction order.

1 36. (Amended) A light modulator comprising:

- 2 a. elongated elements arranged parallel to each other and configured in groupings of
3 the elongated elements, each elongated element comprising a reflective surface
4 and a first conductive element, each of the groupings comprising at least three of
5 the elongated elements and each of the groupings comprising an identical number
6 of the elongated elements; and

- 7 b. a substrate coupled to the elongated elements, the substrate comprising a second
8 conductive element such that in operation an incident light illuminating the
9 elongated elements produces a reflected light when the elongated elements are at a
10 first height and further such that in operation a relative height of the elongated
11 elements of each grouping are adjusted to produce a single diffraction order when
12 [individual] individually varying electrical biases are applied between the first
13 conductive elements of each of the groupings and the second conductive element.